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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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11/644,442

12/22/2006

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20468/YOD (ITWO:0152)

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10/15/2013

EXAMINER

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ART UNIT

PAPER NUMBER

3742

MAIL DATE

DELIVERY MODE

10/15/2013

PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MICHAEL W. ROTH and MICHAEL L. VANDEN HEUVEL

Appeal 2011-012910
Application 11/644,442
Technology Center 3700

Before STEFAN STAICOVICI, CHARLES N. GREENHUT, and
BART A. GERSTENBLITH, *Administrative Patent Judges*.

GERSTENBLITH, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Michael W. Roth and Michael L. Vanden Heuvel (“Appellants”) appeal under 35 U.S.C. § 134 from the Examiner’s decision rejecting claims 1-18 and 22-30.¹ We have jurisdiction under 35 U.S.C. § 6(b).

Claimed Subject Matter

Claims 1, 15, 24, and 27 are the independent claims on appeal. Claim 1 is illustrative of the claimed subject matter and is reproduced below.

1. A system, comprising:
a backpack comprising one or more welding controls disposed on an external surface of the backpack and accessible without opening the backpack, wherein the backpack is configured to be worn by a welding operator; and
a welding wire feeder disposed in the backpack, wherein the welding wire feeder is configured to drive a welding wire.

App. Br. 18, Claims App’x.

References

The Examiner relies upon the following prior art references:

Kim	US 5,307,979	May 3, 1994
De Coster	US 6,075,224	Jun. 13, 2000
Bosio	US 6,617,548 B1	Sep. 9, 2003
Nykoluk	US 2004/0231940 A1	Nov. 25, 2004
Pohr	US 2005/0034476 A1	Feb. 17, 2005
Zucker	US 2005/0087523 A1	Apr. 28, 2005
Hughes	WO 00/76709 A1	Dec. 21, 2000

Rejections

Appellants seek review of the following rejections:

- I. Claim 29 is rejected under 35 U.S.C. § 112, second paragraph, as indefinite;

¹ Claims 19-21 were cancelled. App. Br. 2.

- II. Claims 1, 8, 11, 13-15, 17, 24, and 25 are rejected under 35 U.S.C. § 103(a) as unpatentable over Hughes and Pohr;
- III. Claims 2 and 3 are rejected under 35 U.S.C. § 103(a) as unpatentable over Hughes, Pohr, and Nykoluk;
- IV. Claims 4, 5, 22, and 23 are rejected under 35 U.S.C. § 103(a) as unpatentable over Hughes, Pohr, and Kim;
- V. Claims 6, 7, and 26 are rejected under 35 U.S.C. § 103(a) as unpatentable over Hughes, Pohr, and Zucker;
- VI. Claims 9, 10, and 12 are rejected under 35 U.S.C. § 103(a) as unpatentable over Hughes, Pohr, and De Coster;
- VII. Claims 16 and 18 are rejected under 35 U.S.C. § 103(a) as unpatentable over Hughes, Pohr, and Bosio; and
- VIII. Claims 27-30 are rejected under 35 U.S.C. § 103(a) as unpatentable over Hughes, Pohr, Bosio, and De Coster.

SUMMARY OF DECISION

We AFFIRM.

OPINION

Rejection I – Indefiniteness

The Examiner concluded that claim 29 is indefinite for failing to particularly point out and distinctly claim the subject matter which Appellants regard as the invention. Ans. 4. In particular, the Examiner stated that “[i]t is unclear and indefinite to how [sic] a welding parameter could include a ‘wire feed speed control’ without a wire feeder apparatus.” *Id.* The Examiner thus concluded that claim 29 “is clearly incomplete for omitting essential structural cooperative relationships of elements, such

omission amounting to a gap between the necessary structural connections.” *Id.* at 20 (citing MPEP § 2172.01).

Appellants explain that claim 29 depends from claim 27, which recites, *inter alia*, “a backpack . . . and a remote controller . . . [that] comprises a welding process selection control and a welding parameter control.” App. Br. 7-8 (quoting claim 27). In other words, the remote controller is “capable of controlling the wire feed speed of a wire feeder should a wire feeder be coupled to the backpack.” Reply Br. 2. Appellants assert that there is no reason as to why claim 29 must recite the underlying machine being controlled in addition to a remote controller, when the claim is directed to the controller. *Id.*

We agree with Appellants. Claim 27 is directed to a system comprising a backpack and a remote controller. Unlike independent claims 1, 15, and 24, claim 27 does not recite what, if anything, is in the backpack. Rather, the claim calls for a remote controller that is configured to control a welding power supply and comprises a welding process selection control and a welding parameter control. Claim 29 further specifies that the welding parameters of claim 27 comprise several controls including a “wire speed control.” App. Br. 21, Claims App’x. We see no reason why a system including a backpack and a remote controller, where the welding parameters controlled by the remote controller are expressly recited, would be indefinite for failing to include the apparatus controlled as an element of the claim.

Accordingly, we do not sustain Rejection I.

Rejection II – Obviousness over Hughes and Pohr

The Examiner concluded that the combination of Hughes and Pohr would have rendered obvious the subject matter of claims 1, 8, 11, 13-15,

17, 24, and 25 to one of ordinary skill in the art at the time of invention.

Ans. 5-8. The Examiner found that Hughes discloses the elements of claim 1 except for “one or more welding controls disposed on an external surface of the backpack and accessible without opening the backpack.” *Id.* at 6.

The Examiner found that Pohr discloses one or more controls of a device (“control panel 30 with ON/OFF switch, thermostat 32, selector switch 33, switch 35, display 34”) disposed on an external surface of a backpack and accessible without opening the backpack. *Id.* The Examiner determined that it would have been obvious to one of ordinary skill in the art to modify the “silent location of the one or more controls of the wire feeder of Hughes with the one or more controls of a device being disposed on an external surface of the backpack and accessible without opening the backpack” in order to “provide a means for a person to operate the unit and further to operate the unit with it strapped on.” *Id.* at 6-7. The Examiner also found that the combination applied “a known technique to a known device ready for improvement” and “would have yielded predictable results and resulted in an improved system.” *Id.* at 24. The Examiner noted that Pohr explicitly teaches an advantage of such a configuration as a means to operate the unit with it strapped on. *Id.* at 23 (citing Pohr, para. [0048]); *see also id.* at 24 (same).

Appellants raise two arguments in response to this rejection.² First, Appellants assert that Pohr is non-analogous art. Appellants contend that

² Appellants do not separately argue claims 1, 8, 11, 13-15, 17, 24, and 25 in response to this rejection. *See* App. Br. 8-13; Reply Br. 3-4. We select claim 1 as representative. Accordingly, claims 8, 11, 13-15, 17, 24, and 25 stand or fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(vii) (2011); *see also In re Lovin*, 652 F.3d 1349, 1351 (Fed. Cir. 2011).

Pohr is not in the same field of endeavor because the claims are “generally directed to the field of welding systems and, more particularly, to portable wire feeder systems that may be utilized in such welding systems,” whereas Pohr is “directed to the field of personal air conditioning units.”

App. Br. 10; *see also* Reply Br. 3. Appellants also assert that Pohr is not reasonably pertinent to the problem with which Appellants were involved. App. Br. 10; Reply Br. 3-4. Appellants’ identify their problem as the difficulty of moving a wire feeder to a remote or different location in a work area, whereas Appellants identify Pohr’s problem as providing a multifunctional personal air conditioning unit. App. Br. 11. Thus, Appellants assert that because the problems encountered with personal air conditioning units are different from those encountered in the field of welding wire feeders “one of ordinary skill in the art would not likely turn to the air conditioning industry to solve problems faced by welding systems and devices.” *Id.*

The Examiner found that Pohr is both in Appellants’ field of endeavor and reasonably pertinent to the particular problem with which Appellants were concerned. The Examiner defines Appellants’ field of endeavor as “a system comprising a backpack with a particular apparatus therein to perform a particular function in which the controls thereof are on the external surface of the backpack.” Ans. 21. The Examiner explains the particular problem with which Appellants were concerned as “providing easy access to controls of the apparatus within the backpack.” *Id.* at 22.

“A reference qualifies as prior art for an obviousness determination under § 103 only when it is analogous to the claimed invention.”

In re Klein, 647 F.3d 1343, 1348 (Fed. Cir. 2011) (citing *Innovation Toys*,

LLC v. MGA Entm't, Inc., 637 F.3d 1314, 1321 (Fed. Cir. 2011), and *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004)). “Two separate tests define the scope of analogous art: (1) whether the art is from the same field of endeavor, regardless of the problem addressed and, (2) if the reference is not within the field of the inventor’s endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved.” *Id.* (quoting *In re Bigio*, 381 F.3d at 1325). The “field of endeavor” test “requires the PTO to determine the appropriate field of endeavor by reference to explanations of the invention’s subject matter in the patent application, including the embodiments, function, and structure of the claimed invention.” *In re Bigio*, 381 F.3d at 1325. If the structure and function of the prior art would have been considered by a person of ordinary skill in the art because of similarity to the structure and function of the claimed invention as disclosed in the application, the prior art is properly considered within the same field of endeavor. *See id.* at 1325-26.

Here, we find that Pohr is within the same field of endeavor with which Appellants were involved and reasonably pertinent to the particular problem with which the inventor is involved. With respect to the field of endeavor, the similarity of the structure and function of the claimed backpack with external controls and Pohr’s “backpack-like case” with external controls leads us to find that one of ordinary skill in the art would have considered Pohr. The Specification explains the difficulty of moving an apparatus (a welding wire feeder) using known “suitcase” versions. Spec., para. [0003]. In particular, the “suitcase” versions are not hands free; rather, they are described as “hands-on carrying.” *Id.* Thus, Appellants endeavored to devise a different portable means for transporting an

apparatus without the need for the user to use one or both hands. Appellants thus chose to use a “backpack.”³

Pohr is directed to an apparatus (personal air conditioning unit) that is carried in a “backpack-like flexible case.” *See, e.g.*, Pohr, para. [0037].

Pohr’s device, as shown in Figure 1, is portable without the need for the user to use one or both hands. *See, e.g.*, Pohr, fig. 1. As the Examiner points out, Pohr also discloses positioning the control unit “on the side [of the backpack-like case] so that the person could operate it with the unit strapped on, if required.” Pohr, para. [0048]; *see* Ans. 22.

Accordingly, as in *Bigio*, the similarity of structure between the backpack-like case of Pohr and Appellants’ backpack as well as the similarity of function, i.e., hands-free portability and ease of access to controls on the external surface of the backpack, would have led one of ordinary skill in the art at the time of invention to consider the structure and function of Pohr, regardless of the fact that the specific apparatus contained within each backpack differs.

Additionally, the backpack-like case of Pohr is reasonably pertinent to the particular problem with which Appellants were involved—a means for hands-free movement of an apparatus. Thus, Pohr would have drawn the attention of one of ordinary skill in the art seeking to overcome the problem facing Appellants. And, Pohr’s use of a backpack-like case would have suggested that Appellants consider a backpack-type design for overcoming the same problem. Appellants’ exclusive or predominant focus on the apparatus contained within their backpack as compared to Pohr’s backpack-

³ The “backpack may include a hip mount, a shoulder mount, or a combination thereof.” Spec., para. [0004].

like case takes too narrow a view of the problem facing Appellants and Pohr. Whether the apparatus is a personal air conditioning device or welding wire feeder, the problem of hands-free transport of an apparatus would have led one of ordinary skill in the art seeking to overcome the problem to Pohr. Thus, we also find that Pohr is reasonably pertinent to the particular problem with which Appellants were involved.

Accordingly, we agree with the Examiner that Pohr is analogous art and would have been considered by one of ordinary skill in the art at the time of invention.

Second, Appellants assert that the Examiner has “failed to show objective evidence of the requisite motivation or suggestion to modify or combine Hughes and Pohr to reach the present claims.” App. Br. 12.

To the contrary, the Examiner found that one of ordinary skill in the art would have been prompted to add the teaching of Pohr’s placement of the controls on the exterior surface of the backpack-like case to provide a means for a user to operate the unit with it strapped on a user’s back. *See, e.g.*, Ans. 23. Further, the Examiner found that applying Pohr’s teaching of placing controls on an exterior surface was an improvement of Hughes’s device that would yield predictable results—ability to operate the unit without removing the backpack. *Id.* at 24. Although motivation need not be based on an explicit teaching in a particular prior art reference,⁴ the

⁴ *See, e.g., KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (noting that “the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claims, for a court can take account of the inferences and creative steps that a person of ordinary skill would employ”); *see also DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1365-66 (Fed. Cir. 2006) (noting that an explicit

Examiner found that Pohr explicitly provided such motivation by indicating the advantage of placing the controls on an exterior surface of the backpack-like case. *Id.* at 24 (citing Pohr, para. [0048]).

Accordingly, we are not persuaded that the Examiner failed to provide a reason with rational underpinning as to why one of ordinary skill in the art would have been prompted to combine the exterior controls of Pohr with the device of Hughes. Thus, we sustain Rejection II.

Rejections III-VIII

In response to each of Rejections III-VIII, Appellants assert that the rejection falls for the reasons expressed with respect to Rejection II and that the additional references do not cure the deficiencies of Hughes and Pohr. App. Br. 13-17. Because we did not find the combination of Hughes and Pohr deficient, as explained in the context of Rejection II, Appellants' arguments are unpersuasive. Accordingly, we sustain Rejections III-VIII.

DECISION

We REVERSE the Examiner's decision rejecting claim 29 under 35 U.S.C. § 112, second paragraph.

We AFFIRM the Examiner's decision rejecting claims 1-18 and 22-30 under 35 U.S.C. § 103(a) as reflected in Rejections II-VIII.

teaching to combine “need *not* be found in the prior art references themselves”); *Alza Corp. v. Mylan Labs., Inc.*, 464 F.3d 1286, 1291 (Fed. Cir. 2006) (“There is flexibility in our obviousness jurisprudence because a motivation may be found *implicitly* in the prior art. We do not have a rigid test that requires an actual teaching to combine . . .”).

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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